

WHAT IS CLAIMED IS:

1. A method for providing stateless compression, the method comprising:
receiving a message from a host; and
initializing a stateful compressor with a prescribed sequence to yield a primed state,
wherein the message is input into the stateful compressor, the stateful compressor outputting
a compressed message based upon the primed state.
2. A method according to claim 1, further comprising:
transmitting the compressed message over a wide area network having meshed
connectivity.
3. A method according to claim 2, wherein the wide area network is a satellite
network, the compressed message being transmitted using a single transmission slot over a
communication channel of the satellite network.
4. A method according to claim 1, further comprising:
storing the primed state;
receiving another message from the host;
retrieving the stored primed state; and
outputting another compressed message based upon the primed state.
5. A method according to claim 1, wherein the message conforms with a
communication protocol that supports delivery over the Internet.
6. A method according to claim 1, further comprising:
decompressing the compressed message based upon the primed state of the stateful
compressor.
7. A method according to claim 1, wherein the prescribed sequence includes actual
messages received from the host.
8. A network device for providing stateless compression, comprising:
a communications interface configured to receive a message from a host; and
logic configured to perform stateful compression, wherein a primed state of the logic
is set using a prescribed sequence, the logic outputting a compressed message based upon the
primed state.
9. A device according to claim 8, wherein the communications interface interfaces
with a wide area network having meshed connectivity.

10. A device according to claim 9, wherein the wide area network is a satellite network, the communications interface transmitting the compressed message using a single transmission slot over a communication channel of the satellite network.

11. A device according to claim 8, further comprising:

memory coupled to the logic, the memory storing the primed state, the communications interface receiving another message from the host, wherein the logic outputs another compressed message according to the stored primed state.

12. A device according to claim 8, wherein the message conforms with a network protocol that supports delivery over the Internet.

13. A device according to claim 8, wherein the prescribed sequence includes actual messages received from the host.

14. A communication system comprising:

an originating network element configured to receive a message from a host and to perform stateless compression using a stateful compression scheme, wherein a primed state of the stateful compression scheme is set using a prescribed sequence, the network element outputting a compressed message based upon the primed state; and

a destination network element communicating with the originating network element over a data network, the destination network element being configured to decompress the compressed message.

15. A system according to claim 14, wherein the wide area network is a satellite network that supports time division multiple access (TDMA) channels, the compressed message being transmitted over a single transmission slot of one of the TDMA channels.

16. A system according to claim 14, wherein the originating network element includes a memory for storing the primed state.

17. A system according to claim 14, wherein the message conforms with a network protocol that supports delivery over the Internet.

18. A system according to claim 14, wherein the prescribed sequence includes actual messages received from the host.

19. A network device for providing stateless compression, comprising:

means for receiving a message from a host; and

means for initializing a stateful compressor with a prescribed sequence to yield a primed state, wherein the message is input into the stateful compressor, the stateful compressor outputting a compressed message based upon the primed state.

20. A device according to claim 19, further comprising:

means for transmitting the compressed message over a wide area network having meshed connectivity.

21. A device according to claim 20, wherein the wide area network is a satellite network, the compressed message being transmitted using a single transmission slot over a communication channel of the satellite network.

22. A device according to claim 19, further comprising:

means for storing the primed state, wherein the receiving means receives another message from the host, the stored primed state being retrieved to output another compressed message.

23. A device according to claim 19, wherein the message conforms with a network protocol that supports delivery over the Internet.

24. A device according to claim 19, further comprising:

means for decompressing the compressed message based upon the primed state of the stateful compressor.

25. A device according to claim 19, wherein the prescribed sequence includes actual messages received from the host.

26. A computer-readable medium carrying one or more sequences of one or more instructions for providing stateless compression, the one or more sequences of one or more instructions including instructions which, when executed by one or more processors, cause the one or more processors to perform the steps of:

storing a message received from a host; and

initializing a stateful compressor with a prescribed sequence to yield a primed state, wherein the message is input into the stateful compressor, the stateful compressor outputting a compressed message based upon the primed state.

27. A computer-readable medium according to claim 26, wherein the one or more processors further perform the step of:

initiating transmission of the compressed message over a wide area network having meshed connectivity.

28. A computer-readable medium according to claim 27, wherein the wide area network is a satellite network, the compressed message being transmitted using a single transmission slot over a communication channel of the satellite network.

29. A computer-readable medium according to claim 26, wherein the one or more processors further perform the steps of:

storing the primed state;

storing another message received from the host;

retrieving the stored primed state; and

outputting another compressed message based upon the primed state.

30. A computer-readable medium according to claim 26, wherein the message conforms with a network protocol that supports delivery over the Internet.

31. A computer-readable medium according to claim 26, wherein the one or more processors further perform the step of:

decompressing the compressed message based upon the primed state of the stateful compressor.

32. A computer-readable medium according to claim 26, wherein the prescribed sequence includes actual messages received from the host.